

Proposition 50

The Water Security, Clean Drinking Water,
Coastal and Beach Protection Act of 2002

California Department of Health Services

Chapter 3 Water Security

Chapter 4 Safe Drinking Water

Chapter 6 (b) & (c) Contaminant Removal Technologies

Public Workshops

December, 2005 & January, 2006

Agenda

- What?
 - Prop 50 Introduction
- Why?
 - Prop 50 Background
- When?
 - Timeline
- Who?
 - Responsibilities and Activities
- How?
 - Prop 50 Implementation
- Related Topics
 - Small Systems
 - Disadvantaged Communities
 - Matching Funds
 - Labor Compliance Issues

2

For more information...

- Refer to the DHS website for the latest information:
 - <http://www.dhs.ca.gov/ps/ddwem/Prop50/>
- Questions on Prop 50 ? Please contact:
 - Mark Bartson – mbartson@dhs.ca.gov (707) 576-2734
 - Cindy Garcia – cgarcia@dhs.ca.gov (916) 449-5285
 - David Hallstr – dhallstrom@dhs.ca.gov (916) 449-5622
 - Dwemcomm@dhs.ca.gov (Email address for general questions and information)

3

WHAT?

Prop 50 Introduction

WHAT? - Prop 50 Introduction

- Prop 50 is a \$3.44 billion bond measure approved by voters in 2002
- Followed up by several pieces of implementing legislation (including AB 1747)
- Intended to address water security, water quality, and water quantity issues

5

WHAT? - Prop 50 Introduction

- Funds new or continued GRANT programs in 8 chapters:
 3. **Water Security (DHS)**
 4. **Safe Drinking Water (DHS)**
 5. Clean Water and Water Quality
 6. **Contaminant and Salt Removal Technologies (DHS)**
 7. CALFED Bay-Delta Program (includes Water Recycling)
 8. Integrated Regional Water Management
 9. Colorado River
 10. Coastal Watershed and Wetland Protection
- Programs to be carried out by:
 - SWRCB
 - DWR
 - DHS
 - (CALFED)

6

Prop 50 DHS Programs *(Refer to handout)*

Chapter 3 – Water Security (\$47.25 million)

Chapter 4 – Safe Drinking Water (\$435 million)

- 4a - 5 New grant programs for safe drinking water
~ \$62.355 million
- Drinking Water State Revolving Fund (DWSRF) state match
~ \$89 million
- 4b - Southern California Projects
~ \$237.18 million
Grants to reduce Colorado River use to 4.4 MAF

Chapter 6 – Contaminant and Salt Removal Technologies *

- 6b Contaminant Removal Technologies (~\$23 million)
- 6c UV and Ozone Disinfection (~\$23 million)

** Through Interagency Agreement with DWR*

7

WHY?

Prop 50 Background

8

WHY? - Prop 50 Background

- Prop 50 "gives priority to projects that reduce public and environmental exposure to contaminants that pose the most significant health risks, **and** that will bring water systems into compliance with safe drinking water standards"
- Prop 50 encourages:
 - Integrated, multiple-benefit projects
 - Preference to disadvantaged communities
 - Improvements to local and regional water supplies
- DHS developed criteria to implement programs in Chapters 3, 4, and 6 following the language in Prop 50

9

WHY? - Prop 50 Background

- DHS Prop 50 funds are divided into 9 narrowly-defined programs
- Many proposed projects will NOT be eligible for any of the grant programs
- This is very different from Drinking Water SRF loan program, where most projects were eligible, but might be ranked lower if not addressing MCL violations

10

WHEN?

DHS Prop 50 Timeline

11

WHEN? – DHS Timeline

- Funds to be allocated over at least 4 years
- Pre-applications to be solicited each year
- This is the second year of pre-applications
- Eligible pre-applications from last year remain on the priority list
- New pre-applications will be ranked and combined with last year's pre-applications
- New Project Priority List (PPL) to be created

12

WHEN? –Schedule for Next Year of Funding

Task	Date of Completion
Release pre-applications	November 15, 2005
Public Workshops	Dec, 2005 and Jan, 2006
Pre-applications due	January 31, 2006
DHS Review of pre-applications	By May 1, 2006
Develop Project Priority Lists, Public review	August 1, 2006
Determine Fundable Portion of PPLs	August 30, 2006
Invite Full Applications	September, 2006
Applicants submit full applications	October, 2006
Review applications, prepare technical reports, and issue Letter of Commitment (LOC)	November, 2006 – June, 2007
Applicant submits plans, specs, financial, and environmental documentation	Up to 14 months after LOC
DWR develops funding agreements	After LOC requirements met

13

Current Funding Summary

Chapter	Title	Total Avail. \$ (million)	Pre-aps Received		Pre-aps Eligible		Projects To Be Invited 2005	
			#	\$ (million)	#	\$ (million)	#	\$ (million)
3	Water Security	\$ 47.107	342	\$228	296	\$191.5	10	\$ 31.33
4a1	Small Community Water Systems	\$ 28.88	305	\$209	245	\$170.4	11	\$ 6.36
4a2	Demonstration Projects	\$ 9.06	38	\$ 32	13	\$ 8.6		
4a3	Water Quality Monitoring	\$ 9.06	28	\$ 7.7	19	\$ 4.5	6	\$ 1.19
4a4	Drinking Water Source Protection	\$ 11.46	46	\$ 30	28	\$ 19.9	2	\$ 1.69
4a5	Disinfection Byproduct Treatment	\$ 10.66	27	\$ 24.6	16	\$ 10.6	4	\$ 1.25
4b	Southern California	\$237.18	76	\$285.4	50	\$244	10	\$ 44.8
6b	Demonstration Projects	\$ 22.875	41	\$ 29	17	\$ 11.8		
6c	UV and Ozone Disinfection	\$ 22.875	16	\$ 30	9	\$ 11.8	4	\$ 3.49
Totals:		\$ 399.16	919	\$ 876	693	\$ 673	47	\$ 90.11

14

WHO?

Responsibilities and Activities

15

WHO? – Responsibilities

- DHS Prop 50 work will be carried out primarily by:
 - DHS
 - DWR

- Some work may be done by:
 - Stakeholder committee
 - Peer review panels
 - CALFED
 - PUC

16

HOW?

DHS Prop 50 Implementation

17

HOW? - Prop 50 Implementation

- General criteria
- Pre-applications
- Project Priority Lists
- Related Topics
 - Small water systems
 - Disadvantaged communities
 - Matching Funds
 - Labor compliance

18

General Criteria

All DHS Chapters

19

Prop 50 General Criteria Funding Restrictions

- Grant funds cannot be used for operation and maintenance
- Applicants cannot receive funds for same project from other Prop 50 grant programs
- Key Dates:
 - Oct. 28, 2003 – preliminary expenses eligible for matching funds
 - March 5, 2005 – preliminary expenses eligible for reimbursement
 - After Letter of Commitment – construction expenses eligible for reimbursement
- Payment will not be disbursed until after funding agreement executed

20

Prop 50 General Criteria Other Requirements

- Eligible project costs limited to facilities sized to serve no more than 20-year demand based on an Urban Water Management Plan or similar document
 - Without a planning document, costs limited to facilities sized to serve 10% above current peak flow
- Grants to privately owned water systems are prohibited from earning a profit from use of grant funds
- Project construction must
 - Start within one year after funding agreement execution, including CEQA
 - Conclude within three years of funding agreement
- Requests for time extensions will be considered; granted only if warranted
- All project proposals will be reviewed for cost effectiveness

21

Prop 50 General Criteria Definitions

- "Public Water System": 15 or more service connections or serves at least 25 persons at least 60 days per year
- "Small water system": ≤ 1,000 service connections or ≤ 3,300 population
- "Disadvantaged community": Community with annual household income less than 80 percent of statewide annual median household income
 - Current statewide MHI = \$52,417; 80% ~ \$41,933
 - *more on this later*
- "Matching funds" means funds from non-state sources, including donated services
 - State agencies may use state funds, except Prop 50 funds, for matching funds
 - *more on this later*

22

Pre-applications

All DHS Prop 50 grant programs

23

Pre-applications

- Two-part form
 - "Part 1" = 2 pages same for all programs +
 - "Part 2" = 2 to 4 pages specific to each grant program
- Supplemental documentation allowed
 - Subject to page limits (varies from 1 to 6 pages)
 - Minimum font size and margin widths
- Separate pre-applications required for each grant program

24

Prop 50 Pre-application Database Program

- A pre-application computer program is available:
 - Pick up CD at public workshop
 - Request CD from DHS HQ or district office
 - Download file and instructions from DHS website
- Electronic submittal **highly encouraged**
- Paper forms accepted, but discouraged
- Separate pre-applications required for each project for each funding program

25

Pre-application Review Process

- Pre-applications received @ DHS HQ
- Pre-applications checked by HQ for completeness as they arrive
 - *If pre-ap incomplete, HQ will notify applicant to provide additional information*
- Pre-applications distributed for review
- DWR determines MHI for applicants requesting disadvantaged community status
- Pre-aps for construction projects reviewed by DHS district offices (FOB)
 - *If project is ineligible, FOB notifies HQ ASAP. HQ will notify applicant of ineligibility.*
 - *If project eligible for alternate funding program, applicant will be allowed 2 weeks for resubmittal*
- Pre-aps for technology research grants reviewed by DHS technical staff and peer review panels

26

Project Priority Lists

All DHS Prop 50 grant programs

27

Project Priority Lists

- HQ compiles pre-ap reviews
- HQ assigns MHI bonus points for disadvantaged communities
- HQ develops 17 draft PPLs
 - 1 PPL for each grant program +
 - 1 PPL for each grant program (except 6b) for Disadvantaged Communities
 - Work with peer review panel for 4a.2 and 6b
- Draft PPLs reviewed by
 - SRF/Prop 50 committee
 - Stakeholder group
 - Public (public meeting or public comment period)
 - CALFED
- DHS adopts final PPLs

28

Funding Invitations

- After PPLs adopted, HQ compares PPLs to funding available
- Starting at the top of the PPL, HQ goes down the list until the funds available for that year have been allocated
 - Number of invitations based upon staffing resources and funding available
- Invitations sent to projects in fundable portion to submit full applications
- Applicant must agree to meet a schedule for submitting application and required documents
- If applicant fails to meet schedule, DHS gives 30 days to submit required documents, then project is bypassed and funds allocated to next project on the PPL
 - SWS will be given more time

29

Related Topics

Small Water Systems
Disadvantaged Communities
Matching Funds
Labor Compliance

30

Small Water Systems

- SWS \leq 1,000 service connections OR \leq 3,300 population
 - Includes non-community systems
- No matching funds required for any grant program
- SWS grants: Chapter 4a.1
- Consolidation and/or interconnections encouraged. Eligible under Chap 4a.1 or Chap 3 (security)
- Applicants must meet TMF
 - Grant funds cannot be used to comply with TMF
- Technical Assistance available from DHS

31

Disadvantaged Communities

- 25% of funds in Chapters 3, 4, and 6(c) set aside for disadvantaged communities (DC)
- DC < 80% statewide annual MHI
 - (current MHI = \$52,417; DC < \$41,933)
- Eligible applicants:
 - Public water system (PWS) whose entire service area meets definition of DC
 - OR
 - PWS applying for project to connect or consolidate a separate PWS that meets definition of DC
 - OR
 - PWS applying on behalf of a community within the PWS service area that meets definition of DC
- Project must benefit only the disadvantaged community

32

Disadvantaged Communities

- Determined by 2000 Census Data adjusted for current year.
- Applicant may apply for Disadvantaged Community status
- Department of Water Resources makes Median Household Income determination.
- **Do not** submit MHI data with the pre-application.
- Income surveys may also be used – contact DHS for more information.

33

Disadvantaged Communities

- Separate DC PPL for each grant program (except 6b)
- Ranking criteria for each DC PPL:
 1. Criteria for grant program
 2. Bonus points
 - MHI
 - Consolidation of 2 or more PWS = 10 bonus points
 3. Type of PWS (community > non-transient > transient)
 4. Population (larger over smaller)
- No matching funds required!

MHI of Community	Bonus Points
≥ 80% of statewide MHI	not eligible
60% - 79% of statewide MHI	5
40% - 59% of statewide MHI	10
20% - 39% of statewide MHI	15
< 20% of statewide MHI	20

34

Matching Funds

- Applicant funds spent after Oct. 28, 2003 are eligible
- Must be non-state funds
- State agencies may use non-Prop 50 state funds for match
- Possible Sources:
 - Local (user fees, taxes, water rates, assessments)
 - Federal (SRF loans, USDA grants or loans)
 - Other partners (research foundations, private entities)
- Types of non-cash contributions
 - Staff expenses
 - Office support (supplies, reproduction, phone)
 - Donated equipment or supplies
 - Force account work
- 1:1 match required
- Small water systems and DC exempt

35

Labor Compliance

- SB 278 (Machado, Chapter 892, Statutes of 2002) requires that entities awarding public works projects financed with state bond funds must adopt and enforce a labor compliance program.
- Information is available on the Dept. of Industrial Relations website
 - www.dir.ca.gov/lcp.asp
- Applicant is responsible for complying with this requirement; DHS to verify
- AB 2690 allows volunteers to be used under certain circumstances
- Consultants are available and will prepare and implement these plans
- Costs for preparing and enforcing the LCP are reimbursable for Disadvantaged Communities and small water systems

36

HOW? - Prop 50 Implementation

- Specific information for each chapter
 - Eligible applicants
 - Eligible projects
 - Funding limitations
 - Ranking criteria
 - Ineligible components
 - Other comments or issues

37

Chapter 3 Water Security

38

Chap. 3 – Water Security

- Eligible applicants
 - All public water systems (PWS)
- Eligible projects
 - Projects to prevent the disruption of drinking water deliveries from terrorist attack or deliberate acts of destruction or degradation. Focus is on enhancing the reliability of drinking water delivery systems.
- Funding Limitations
 - Funds available \$47.1 million
 - Min. grant \$50,000
 - Max. grant \$10 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities

39

Chap. 3 – Water Security

- Ranking Criteria
 - Bonus points
 - 1 bonus point for each intertie up to 5 bonus points (intertie must provide \geq 25% of water supply for recipient or at least 10 MGD)
 - 5 bonus points for projects that benefit 5 or more public water systems
 - Projects ranked by
 1. Bonus points
 2. Max Daily Population served (including seasonal and transient populations)

40

Chap. 3 – Water Security

- Ineligible components
 - Operation and maintenance (O&M)
 - Standby generators
 - Routine responsibilities of water system
 - Projects previously required by DHS or LPA
- Examples of eligible projects or components
 - Monitoring and early warning systems
 - Fencing
 - Protective structures
 - Contamination treatment facilities (emergency facilities, not routine or standby)
 - Interconnections (emergency or permanent/long-term)
 - Communications systems
 - Other projects designed to prevent damage to water treatment, distribution and supply facilities

41

Chap. 3 – Water Security


- Other Issues
 - Proposed new monitoring or early warning technologies will be evaluated by DHS for accuracy and precision
 - All public water systems must submit following to permit agency before funding agreement:
 - Emergency Response Plan
 - Emergency Notification Plan
 - Community water systems (> 1,000 service connections or > 3,300 population):
 - Complete and submit Security Vulnerability Assessment to US EPA
 - Certify to US EPA that updated Emergency Response Plan completed
 - Other public water systems exempt from requirements


42

Chapter 4 Safe Drinking Water

43

Chapter 4a 5 New Grant Programs ~\$62.355 million

1. Small community water system monitoring, treatment and distribution facilities
 - (\$28.88 million)
-  2. New contaminant removal and treatment technologies
 - (\$9.06 million)
3. Community water system monitoring facilities
 - (\$9.06 million)
4. Drinking water source protection
 - (\$11.46 million)
5. Disinfection byproduct (DBP) treatment facilities
 - (\$10.66 million)

 *Demonstration projects, pilot studies, and bench scale studies*

44

Chapter 4a

General Criteria

- Ranking Criteria for each grant program are based primarily on:
 - Compliance with safe drinking water standards
 - Health threat of contaminant
- 25% set aside for disadvantaged communities
- Recipients must meet technical, managerial, and financial capacity (TMF) requirements
- Projects eligible under Chap. 4b not eligible under Chap. 4a
 - Even if the project is not ranked high enough under 4b to receive funding
 - Thus, the only projects from southern California that can apply for Chap 4a funds are those that don't reduce demand on Colorado River water

45

Chapter 4a.1

Small Community Water Systems Monitoring, Treatment, and Distribution Facilities

46

4a.1 – Small Community Water Systems

- Eligible applicants
 - Community Water Systems $\leq 1,000$ s.c. or $\leq 3,300$ population served
 - System must be in non-compliance with a safe drinking water standard
- Eligible projects
 - Projects that upgrade monitoring, treatment, or distribution infrastructure (pipes, tanks, pump stations, etc.) for small systems
 - New sources eligible if they solve the compliance problem
 - Consolidation eligible if solves the compliance problem
- Funding Limitations
 - Funds available \$28.88 million
 - Min. grant \$5,000
 - Max. grant \$2 million
 - Match no match required for small water systems
 - 25% set-aside for disadvantaged communities

47

4a.1 – Small Community Water Systems

- Ranking Criteria
 1. SDWSRF categories
 2. Population served (larger > smaller)
- Ineligible components
 - Operation and maintenance (O&M)
 - Project facilities that are not integral to and necessary to solve the compliance problem
 - Land costs (other than those necessary for treatment or source or pipeline footprint)
 - TMF Deficiencies
 - Backflow prevention devices unless devices are necessary or required to allow the project to be operated and is responsibility of PWS
 - Refinancing
 - House laterals
 - Water system purchase

48

4a.1 – Small Community Water Systems

- Other Issues
 - Reminder - Water systems on current SRF project priority list will need to submit a pre-application for Prop 50
 - The project must correct the violation for which the project was ranked
 - Fire protection eligibility same as DWSRF
 - Land purchases must be from a willing seller

49

Drinking Water State Revolving Fund (DWSRF) Categories (Part 1)

Category	Description
DWSRF-A	Demonstrated illness attributable to the water system or system under court-ordered compliance
DWSRF-B	Microbial contamination of the water supply resulting in a repeated coliform bacteria maximum contaminant level (MCL) violation
DWSRF-C	Unfiltered surface water or wells that have fecal or E. coli contamination
DWSRF-D	Filtered surface water that violates the surface water filtration and disinfection regulation
DWSRF-E	Insufficient water source capacity resulting in water outages
DWSRF-F	Nitrate/nitrite contamination exceeding MCL
DWSRF-G	Chemical contamination (other than nitrate/nitrite) exceeding a primary MCL

50

Drinking Water State Revolving Fund (DWSRF) Categories (Part 2)

Category	Description
DWSRF-H	Uncovered distribution reservoirs and low-head lines
DWSRF-I	Systems meeting existing MCLs but not proposed microbial MCLs or the California Cryptosporidium Action Plan
DWSRF-J	Significant sanitary defect involving sewage
DWSRF-K	Disinfection facilities that have defects
DWSRF-L	Systems meeting existing MCLs but not future non-microbial MCLs or action levels
DWSRF-M	Other waterworks standards defects
DWSRF-O	Other water system deficiencies
DWSRF-X	Combine project with another submitted by system
DWSRF-Z	Ineligible projects or systems

51

Chapter 4a.2 Demonstration Projects and Studies for New Contaminant Treatment and Removal Technologies (Detailed information included in Appendix)

52

Chapter 4a.3 Community Water System Monitoring Facilities and Equipment

53

4a.3 – Community Water System Monitoring

- Eligible applicants
 - Community water systems
 - System must be in non-compliance with a requirement that can be addressed by monitoring equipment
- Eligible projects
 - Projects that provide monitoring facilities and equipment to community water systems
- Funding Limitations
 - Funds available \$9.06 million
 - Min. grant **\$5,000**
 - Max. grant \$2 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities

54

4a.3 – Community Water System Monitoring

- Ranking Criteria
 1. Prop 50/AB 1747 categories (based on monitoring deficiencies) These categories are shown on the following four slides.
 2. Population served (larger > smaller)
- Ineligible Components
 - Operation and maintenance (O&M)
 - TMF Deficiencies
 - Facilities and equipment that are not integral to and necessary to solve the monitoring deficiencies, including:
 - Treatment equipment
 - Distribution system infrastructure
 - Storage or pumping facilities
 - New sources

55

Prop 50/AB 1747 Categories

- New categories were created to rank projects in these grant programs:
 - 4a.2 Contaminant Removal & Treatment Technologies
 - 4a.3 Community Water System Monitoring Facilities
 - 4b Southern California Projects
- The categories are based on:
 - Health Risk
(contaminants associated with acute health risks > chronic health risks)
 - Regulatory Status
(MCL > Action Level > Public Health Goal > unregulated)
 - Prop 50/AB 1747 priority contaminants
(Arsenic, Disinfection Byproducts, Uranium, Perchlorate, Chromium 6, Endocrine Disruptors)

56

Prop 50/AB 1747 Categories (1)

Category	Description	Contaminants Included in Category
50-A	Projects addressing microbial contaminants that violate a state or federal primary MCL or violate a drinking water treatment standard.	Microbial contaminants, <i>Giardia</i> , <i>Cryptosporidium</i> , turbidity
50-B	Projects addressing contaminants that exceed a state or federal primary MCL and that are considered to result in acute health effects, developmental effects, or effects from shorter-term exposure .	Nitrate and Nitrite; also Perchlorate, once its MCL is adopted
50-C	Projects addressing an emerging contaminant that is considered to result in acute health effects, developmental effects, or effects from shorter-term exposure, and one for which an MCL will be established and that is identified as a priority, pursuant to AB 1747.	Perchlorate, until its MCL is established.
50-D	Projects addressing contaminants that exceed a state or federal MCL, and that are given priority by AB 1747	Arsenic, Uranium; Disinfection byproducts—TTHMs, HAA5, bromate, chlorite

57

Prop 50/AB 1747 Categories (2)

Category	Description	Contaminants Included in Category (or examples of contaminants, for Categories 50-E, 50-H, and 50-I)
50-E	Projects addressing contaminants that exceed a state or federal primary MCL and that are not identified in 50-A, 50-B, 50-C, or 50-D	Benzene, 1,2-Dichloroethane, Carbon tetrachloride, DBCP, EDB, PCE, TCE, MTBE
50-F	Projects addressing an emerging contaminant that is considered to result in chronic health effects (that is, not the effects mentioned in Category 50-C), and one for which an MCL will be established, and that is identified as a priority, pursuant to AB 1747.	Chromium-6*
50-G	Projects addressing unregulated contaminants detected in drinking water and generally are considered by the scientific community to be endocrine disrupters, pursuant to AB 1747.	Endocrine disrupters

*Chromium-6 is currently regulated under MCL for total chromium, and could be considered under 50-E, if the total chromium MCL is exceeded and chromium-6 is contributing to the exceedance. Once a chromium-6-specific MCL is adopted, it would likely move to 50-D or 50-E, pursuant to AB 1747's priorities. 58

Prop 50/AB 1747 Categories (3)

Category	Description	Contaminants Included in Category (or examples of contaminants, for Categories 50-E, 50-H, and 50-I)
50-H	Projects addressing contaminants that are detected above a DHS drinking water action level **. Action levels may be established by DHS for emerging contaminants found in drinking water.	1,2,3-Trichloropropane, NDMA, 1,4-Dioxane
50-I	Projects addressing contaminants that exceed a state secondary MCL.	Iron, Manganese, Zinc, Total Dissolved Solids (TDS), Specific Conductance, Chloride
50-J	Other emerging contaminants	---

** An action level is an advisory level established by DHS for some unregulated chemicals found in drinking water. Over the past two decades, a number of chemical contaminants have proceeded from having action levels to having MCLs, though many have remained with only their action levels. Currently there are 49 contaminants with action levels.

59

4a.3 – Community Water System Monitoring

- Comments
 - Reminder - Water systems on current SRF project priority list will need to submit a pre-application for Prop 50
 - Project must correct violation for which project was ranked

60

Chapter 4a.4 Drinking Water Source Protection

61

4a.4 – Drinking Water Source Protection

- Pre-applications for Source Water Protection (SWP) grants are based on a completed drinking water source assessment
 - "Possible contaminating activities" (PCAs) of human origin to a drinking water source
- Assessment: 100+ PCAs caused by humans that may produce, use, store, transport, or dispose of chemical or microbiological contaminants or turbidity that could potentially contaminate a water supply.

62

4a.4 – Drinking Water Source Protection

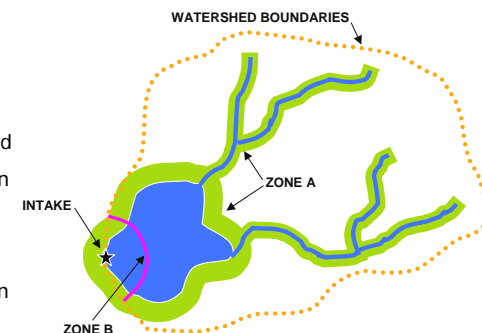
- Source water assessment zones
- Groundwater - 3 zones:
 - Zone A: 2 year time-of-travel around a well
 - Zone B5: 5 year
 - Zone B10: 10 year



63

4a.4 – Drinking Water Source Protection

- Surface water zones:
 - Watershed boundaries delineated
 - Zone A: areas within 400' of reservoir boundary, or within 200' of a tributary
 - Zone B: areas within 2500' of intake



64

4a.4 – Drinking Water Source Protection

- Eligible applicants
 - Public water systems
- Eligible projects
 - Projects that protect a drinking water source from contamination
 - Prevent a Possible Contaminating Activity (PCA) from releasing contaminants, or
 - Prevent contaminants that have been released from reaching the water supply.
- Financial
 - Funds available \$11.46 million
 - Min. grant \$50,000
 - Max. grant \$2 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities

65

4a.4 – Drinking Water Source Protection

- Ranking Criteria
 - SWP categories (see later slides)
 - Bonus points
 - Contaminant released and moving towards source (4 pts)
 - Local SWP committee in place (2 pts)
 - Local written SWP or equivalent plan (2 pts)
 - Addresses source used by multiple systems participating in project (1 point per additional system up to 3 pts)
 - Type of system
(community > non trans. > transient)
 - Population served (larger > smaller)

66

4a.4 – Drinking Water Source Protection

- Ineligible components
 - SWP funds may not be used to:
 - Clean up contamination
 - Construct new sources
 - Install treatment on existing sources
 - Reconstruct or modify existing sources
- *(other sources of funds available for these actions, therefore ineligible under this grant program)*
- Comments
 - SWP SRF loans can be used as matching funds. Water systems are encouraged to apply for both programs.
 - Other parties that want to participate (watershed groups, public agencies, property owners, etc.) must partner with a public water system

67

4a.4 Source Water Protection Categories (1)

SWP projects are categorized based on the health risk and regulatory status of the contaminant associated with the PCA to be addressed, and the zone in which the PCA occurs

Category	Description
SWP-A	Projects addressing possible contaminating activities (PCAs) associated with microbial contaminants located in Zone A for a groundwater source or projects addressing PCAs associated with microbial contaminants or turbidity in Zones A or B for a surface water source.
SWP-B	Projects addressing PCAs associated with contaminants with established maximum contaminant levels (MCLs) that may cause acute health effects located in zones for groundwater or surface water sources.
SWP-C	Projects addressing PCAs associated with contaminants with established MCLs that may cause acute health effects located in the recharge area for a groundwater source or within the watershed for a surface water source.
SWP-D	Projects addressing PCAs associated with other contaminants with established MCLs located in zones for groundwater or surface water sources.

68

4a.4 Source Water Protection Categories (2)

Category	Description
SWP-E	Projects addressing PCAs associated with other contaminants with established MCLs located in the recharge area for a groundwater source or within the watershed for a surface water source.
SWP-F	Projects addressing PCAs associated with contaminants without established MCLs that may cause acute health effects located in zones for groundwater or surface water sources.
SWP-G	Projects addressing PCAs associated with contaminants without established MCLs that may cause acute health effects located in the recharge area for a groundwater source or within the watershed for a surface water source.
SWP-H	Projects addressing PCAs associated with other contaminants without established MCLs located in zones for groundwater or surface water sources.
SWP-I	Projects addressing PCAs associated with other contaminants without established MCLs located in the recharge area for a groundwater source or within the watershed for a surface water source.

69

4a.4 – Drinking Water Source Protection

- Examples of eligible projects:
 - Fencing to keep cattle away from a surface water intake, or reservoir, and tributaries
 - Directing storm water runoff away from surface water intakes
 - Identifying and destroying abandoned wells within source protection zones
 - Land management to minimize release or runoff of contaminants
 - Purchase of land, development rights, or easements to prevent the release or movement of contaminants

70

Chapter 4a.5 Disinfection Byproduct (DBP) Treatment Facilities

71

4a.5 – DBP Treatment Facilities

- Eligible applicants
 - Public Water Systems*
 - Water system must be in non-compliance with Stage 1 DBP Rule:
 - Violate or exceed (PWS <10,000 population) an MCL
 - Total Trihalomethanes (TTHMs), Haloacetic Acids (HAA5), Chlorite, Bromate
 - Failure to meet a treatment technique for removal of TOC
- Eligible projects
 - Projects that provide treatment facilities necessary to meet disinfectant by-product (DBP) safe drinking water standards

*Only community and non-transient non-community systems that have a disinfectant in the water supply have to comply with Stage 1 DBP rule; transient non-community have to meet chlorite MCL if use chlorine dioxide

72

4a.5 – DBP Treatment Facilities

- Funding limitations
 - Funds available \$10.66 million
 - Min. grant \$50,000
 - Max. grant \$2 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities
- Ranking Criteria
 1. DBP MCL violations > no DBP MCL violation
 2. Theoretical cancer risk (cancer cases/million persons/lifetime) (highest first) [see table]
 3. Elevated cancer risk x population (highest first)

73

4a.5 – DBP Treatment Facilities

- Applicant responsible for providing:
 - Average concentration of DBPs based on monitoring data
 - Systems > 10,000 persons use last 5 years of quarterly data
 - Other systems use all data
 - Calculated cancer risk based on average concentration of DBPs (use table)

74

4a.5 DBP Treatment Facilities

- Ineligible components
 - O&M
 - Project facilities that are not integral to and necessary to solve the DBP problem
 - New sources
- Other Issues
 - Costs to start up treatment plant are eligible
 - Project must bring the system into compliance with Stage 1 DBP rule
 - Must follow guidance for pathogen control
 - Cannot get funds for same project from Chap. 6 or other Chap. 4 programs

75

4a.5 DBP Theoretical Cancer Risk Worksheet

A	B	C	D	E	F
Disinfection Byproducts (DBPs)	MCL (in µg/L)	DBP conc. for <i>de minimis</i> cancer risk (µg/L)	Enter average DBP conc. (µg/L) for all DBPs, including TTHM & HAA5	Divide DBP conc.'s in Column D by Column C, and enter here (cancer cases/million people)	Sum values in Column E at the bottom of this column (cancer cases/million people/lifetime)
Total Trihalomethanes (TTHM)	80				
Bromodichloromethane		0.6			
Bromoform		4			
Chloroform		N/A		N/A	
Dibromochloromethane		0.4			
Haloacetic Acids (HAA5)	60				
Monochloroacetic Acid		--		--	
Dichloroacetic Acid		0.7			
Trichloroacetic Acid		N/A		N/A	
Monobromoacetic Acid		--		--	
Dibromoacetic Acid		--		--	
OTHER					
Bromate	10	0.05			
Chlorite	1,000	N/A		N/A	Total: _____

Chapter 4b Southern California Projects

To meet drinking water standards AND assist the state in reducing Colorado River water use to 4.4 MAF/year

77

4b – Southern California projects

■ Eligible applicants

- Public Water Systems whose service area is entirely or partly in Los Angeles, San Diego, Imperial, Riverside, Orange, San Bernardino, Santa Barbara, or Ventura Counties
- Water system must currently obtain water from the Colorado River, or receive water from another entity that obtains water from the Colorado River
- Note that water systems in Santa Barbara County and most of Ventura County do not receive any water from Colorado River
 - Thus are not eligible for funds from Chap 4b, but can apply under Chap 4a. *(more information later)*

78

4b – Southern California projects

■ Eligible projects

- Projects that assist applicants in meeting drinking water standards AND in meeting the state's commitment to reduce Colorado River water use to 4.4 million acre-feet (MAF) per year
- Proposed project must be for a new drinking water source, or a source that is not currently available
- New source, without proposed treatment, would fail to meet a drinking water standard, or contains an AB 1747 priority contaminant (Arsenic, DBP, Uranium, Perchlorate, Chromium 6, Endocrine Disruptors) or contains another emerging contaminant
- Projects that are eligible for funding from Chap 4b cannot apply for funds from Chap 4a
 - Even if the project would be ranked too low in Chap 4b to be offered funding

79

4b – Southern California projects

■ Funding limitations

- Funds available \$237.18 million
- Min. grant \$50,000
- Max. grant \$20 million
- Max. grant for regional projects by multiple applicants = \$20 million per applicant up to \$60 million max.
- Match 1-to-1
- 25% set-aside for disadvantaged communities

80

Chap. 4b – Southern California projects

■ Ranking Criteria

1. Prop 50/AB 1747 categories
 - + Population (larger > smaller) within a category
 - (points will be assigned from 1 to ...)
2. Annualized volume of Colorado River water saved
(based on annual average expected over 10 years)
 - (points will be assigned from 1 to ...)
3. Cost/volume saved (lower cost > higher cost)
 - (points will be assigned from 1 to ...)

Points for each criteria will be added together and projects will be ranked by points from lowest to highest.

■ Ineligible components

- O&M
- Project facilities that are not integral to and necessary to meet drinking water standards or to address AB 1747 priority contaminants or other emerging contaminants

81

Chap. 4b – Southern California projects

■ Other issues

- Cannot submit pre-applications for the same project under grant programs 4a and 4b
- Projects that provide an alternate supply of water, but do not address violations of drinking water standards (or AB 1747 priority contaminants), are not eligible
- Costs to start up treatment plant are eligible
- Applicants proposing projects that reduce demand on State Water Project supplies must execute a continuing transfer of that reduction to another agency such that the long-term demand on Colorado River water will be reduced*

- *The intent of this grant program is to reduce demand on the Colorado River. Water agencies in Southern California that are not supplied by Colorado River water would not typically be eligible for funds under this grant program. However, an applicant with rights to the State Water Project (SWP) may propose a project to develop an alternate source of water, thereby reducing the applicant's need for SWP water. If the applicant is willing to transfer the rights for SWP water to another SWP contractor that uses Colorado River water, and can demonstrate that this would have a net effect of reducing demand on Colorado River, then the project may be eligible for funding under this grant program.

82

Chapter 4b Southern California Projects Project Ranking Example

Rank	System Name	Criterion 1			Criterion 2		Criterion 3		Total Points
		Population	Prop 50/AB 1747 Category	Points	Annual Volume of Reduced Demand (acre-feet)	Points	Cost per Volume (\$/acre-foot)	Points	
1	County Water Agency	50,000	C (Perchlorate)	3	60,000	2	\$100	1	6
2	City of XYZ	250,000	D (Arsenic)	4	85,000	1	\$150	2	7
3	ABC Water Company	1.5 million	B (Nitrate)	1	50,000	3	\$300	4	8
4	Clean Water District	600,000	B (Nitrate)	2	25,000	4	\$200	3	9

83

Chapter 6 Contaminant Removal Technologies

Chapter 6b: Pilot and demonstration projects for contaminant removal technology
(Detailed information included in Appendix)

Chapter 6c: Ultraviolet (UV) and ozone treatment

84

Chapter 6c UV and Ozone Disinfection

For UV or ozone drinking water
disinfection facilities

85

6c – UV & Ozone Disinfection

- Eligible applicants
 - Public water systems
- Eligible projects
 - Projects to install disinfection facilities using ultraviolet (UV) or ozone technology
 - Projects must address an MCL violation, surface water treatment microbial requirements, or other mandatory disinfection. Projects must solve a compliance problem.
- Funding Limitations
 - Funds available \$22.87 million
 - Min. grant \$50,000
 - Max. grant \$5 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities

86

6c – UV & Ozone Disinfection

- Ranking Criteria
 1. UV > ozone
 2. Categories:
 - a. Projects addressing Total Coliform Rule (TCR) violations caused by fecal contamination OR projects addressing Surface Water Treatment Rule microbial requirements
 - b. Projects addressing other TCR violations
 - c. Projects addressing DBP violations necessitating a change in disinfectant
 - d. Projects addressing other disinfection required by the Department
 3. Population served (larger > smaller)

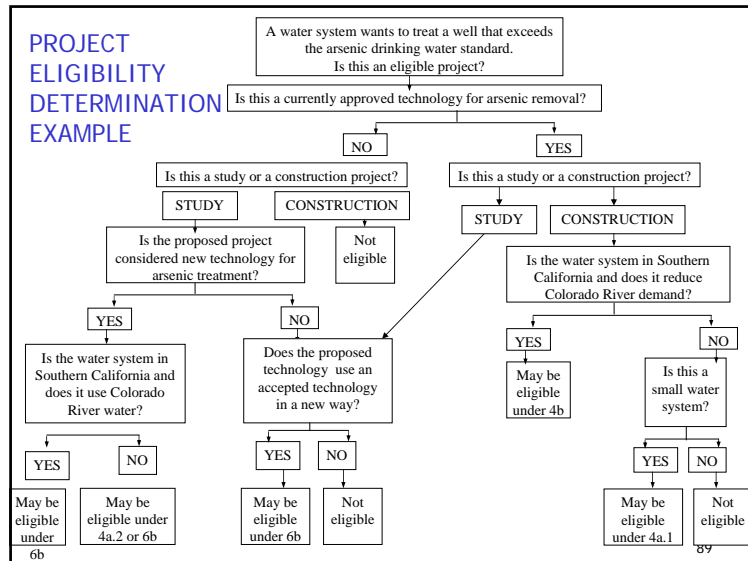
87

6c – UV & Ozone Disinfection

- Ineligible components
 - O&M
- Other Issues
 - In pre-application – applicant must state if disinfection profile to benchmark performance has been completed, and describe results of profile
 - Must demonstrate O&M capacity
 - Cannot get funds for same project from Chap. 4 programs
 - Ozone must minimize byproduct formation
 - Must solve problem for which project was ranked
 - Costs to start up new treatment plant are eligible

88

**PROJECT
ELIGIBILITY
DETERMINATION
EXAMPLE**



For more information...

- Refer to the DHS website for the latest information:
 - <http://www.dhs.ca.gov/ps/ddwem/Prop50/>
- Questions on Prop 50 Program can be addressed via e-mail to:
 - Dwemcomm@dhs.ca.gov (Email address for general questions and information)
 - Mark Bartson – mbartson@dhs.ca.gov (707) 576-2734
 - Cindy Garcia – cgarcia@dhs.ca.gov (916) 449-5285
 - David Hallstrom – dhallstr@dhs.ca.gov (916) 449-5622

90

Appendices

**Detailed Information on
Chapter 4a2 -
Chapter 6b - Pilot and demonstration projects for
contaminant removal technology**

91

Chapter 4a.2 Demonstration Projects and Studies for New Contaminant Treatment and Removal Technologies

92

4a.2 Contaminant Removal & Treatment Technologies

- Eligible applicants
 - Public Water Systems
 - Other parties that want to participate (researchers, consultants, equipment manufacturers) must partner with a public water system
- Eligible projects
 - Demonstration projects, pilot studies, and bench scale studies that develop and demonstrate new technologies and related facilities for water contaminant removal and treatment
 - The proposed study must involve new treatment technology for the contaminant(s) being treated. It should not involve treatment technology that has already been accepted by DHS for the contaminant(s) being treated.

93

4a.2 – Contaminant Removal & Treatment Technologies

- Funding Limitations
 - Funds available \$9.06 million
 - Min. grant \$50,000
 - Max. grant \$2 million
 - Match 1-to-1
 - 25% set-aside for disadvantaged communities
- Ranking Criteria
 1. Prop 50/AB 1747 categories (shown on Slides # 56, 57, 58 & 59 earlier in the slide show) Within a category, projects that address multiple contaminants will be ranked higher
 2. Type of study
 - Demonstration projects > Pilot studies > Bench scale studies
 - Applied research > Basic research
 3. Peer review panel to determine final priority list

94

4a.2 – Contaminant Removal & Treatment Technologies

- Proposal (pre-application) requirements
 - Qualifications of project proponents
 - Description of how this technology is new or different
 - Data collection and study protocol
 - Study components:
 - O&M issues; O&M manual (for demonstration projects)
 - Peer review (applicant technical advisory committee)
 - Plan for public dissemination of results
 - Operation expertise required
 - Handling and disposal of residuals
 - Confidential data must be marked "Confidential"

95

4a.2 – Contaminant Removal & Treatment Technologies

- Other Issues
 - Projects dealing with MTBE or other oxygenates will be referred to the Drinking Water Treatment & Research Fund (if funds for research available) (\$1 million available each year)
 - Intellectual property developed pursuant to this grant program shall be the property of the State of California and shall remain in the public domain
 - "New technology" means:
 - Not listed in Best Available Technology for a particular contaminant in regulations
 - Not previously approved by DHS for a particular contaminant (list being created)
 - Cannot get funds for same project from Chap. 6 programs

96

Chapter 6 Contaminant Removal Technologies

Chapter 6b: Pilot and demonstration projects for contaminant removal technology

Chapter 6c: Ultraviolet (UV) and ozone treatment

97

6b – Contaminant Removal & Treatment

■ Eligible Projects

- Pilot and demonstration projects for treatment or removal of the following categories of contaminants:
 1. Petroleum products, such as MTBE and BTEX
 2. N-Nitrosodimethylamine (NDMA)
 3. Perchlorate
 4. Radionuclides, such as radon, uranium, and radium
 5. Pesticides and herbicides
 6. Heavy metals, such as arsenic, mercury, and chromium
 7. Pharmaceuticals and endocrine disrupters (includes nitrate)
- The study may involve:
 - New treatment technology for the contaminant(s) being treated, or
 - Existing technology applied to a new contaminant, or
 - Existing technology used in a different way (i.e., reducing residuals)

98

6b – Contaminant Removal & Treatment

- Eligible applicants
 - Public water systems
 - Public entities (public universities, public districts, state agencies, counties, etc.)
 - Other parties that want to participate (researchers, consultants, equipment manufacturers) must partner with an eligible applicant
- Funding Limitations
 - Funds available \$22.87 million
 - Min. grant \$50,000
 - Max. grant \$5 million
 - Match 1-to-1
 - (no disadvantaged community set-aside)
- Ranking Criteria
 1. Points based on Table 1 (attached)
 2. Demonstration projects > pilot studies
 3. No more than 30% of funds to address a single contaminant
 4. Peer review panel to determine final priority list

99

Chap. 6b – Contaminant Removal & Treatment

■ Proposal (pre-application) requirements

- Qualifications of project proponents
- Description of how this technology is new or different
- Data collection and study protocol
- Study components:
 - O&M issues and costs; O&M manual (for demonstration projects)
 - Peer review (applicant technical advisory committee)
 - Plan for public dissemination of results
 - Operation expertise required
 - Handling and disposal of residuals
- Confidential data must be marked "Confidential"

100

Chap. 6b – Contaminant Removal & Treatment

■ Other issues

- If project addresses MTBE should check on availability of DWTRF research funds
- Cannot get funds for same project from Chap. 4a.2
- Intellectual property developed pursuant to this grant program shall be the property of the State of California and shall remain in the public domain

101

6b - Contaminant Removal & Treatment Table 1 – Ranking Points

Regulatory Status of Contaminant Addressed	Health Risk of Contaminant Addressed	Statewide Occurrence in Drinking Water Sources	Statewide Population Impacted by Contaminated Sources	# Prop 50 Chap. 6b Categories Addressed	Pharmaceuticals and Endocrine Disruptors	Small System Technology
Contaminant w/ MCL = 4	Acute effects, developmental effects, or effects from short term = 4	Detected in 1,000 or more sources = 4	1,000,000 or more = 4	7 categories = 6	Addresses Pharmaceuticals = 1	Primarily Addresses Small systems = 4
Contaminant w/ PHG, but MCL not yet adopted = 3	Carcinogen by ingestion + chronic effects = 3	Detected in 100 to 1000 sources = 3	100,000 to 1,000,000 = 3	6 categories = 5	Addresses Endocrine Disruptors = 1	
Contaminant with Action Level = 2	Carcinogen by ingestion = 2	Detected in 5 to 100 sources = 2	10,000 to 100,000 = 2	5 categories = 4	.	
.	Chronic effects = 1	Detected in ≤ 5 sources = 1	$\leq 10,000$ = 1	4 categories = 3	.	
.	.	.	.	3 categories = 2	.	102